What is claimed is:

- 1. A vacuum ultraviolet radiation excited light-emitting device comprising a discharge space filled with a rare gas between a front faceplate and a rear faceplate, and a fluorescent material layer provided on the front faceplate, the fluorescent material layer having a thickness of not more than about 7 $\mu\,\mathrm{m}$.
- The vacuum ultraviolet radiation excited light-emitting
 device according to claim 1, further comprising a fluorescent material layer on the rear faceplate.
 - 3. The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a rare gas lamp.

15

5

4. The vacuum ultraviolet radiation excited light-emitting device according to claim 3, wherein the fluorescent material layer on the rear faceplate has a thickness of not less than about 30 μ m.

20

- 5. The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a plasma display panel.
- 6. The vacuum ultraviolet radiation excited light-emitting device according to claim 5, wherein the fluorescent material

5

layer on the rear faceplate has a thickness of not more than about 20 $\mu\,\mathrm{m}$.

7. The vacuum ultraviolet radiation excited light-emitting device according to claim 1, wherein the fluorescent material layer contains a fluorescent material having an average primary

particle diameter of not more than about $1\,\mu\,\mathrm{m}$.